25

5

10

## WHAT IS CLAIMED IS:

- 1. A homezone call forwarding service method comprising the steps of:
- (1) sending, by an origination mobile switching center (MSC), a location request invoke message to a home location register (HLR) of a terminating subscriber in order to acquire location information of the terminating subscriber, when an originating subscriber calls the terminating subscriber;
- (2) analyzing, by the HLR, number information included in the received location request invoke message to determine whether the number is a number for a homezone or a number for a non-homezone, and sending a routing information request invoke message to a terminating MSC in order to acquire routing information, said routing information request invoke message including a parameter for inserting number identification information and a termination trigger parameter for defining a termination trigger point presently activated for the subscriber;
- (3) upon receipt of the routing information request invoke message, assigning, by the terminating MSC, a temporary local directory number (TLDN) for routing, registering a parameter having the number identification information and the termination trigger parameter in a visitor location register (VLR), and sending a routing information request result message having a routing information parameter to the HLR of the terminating subscriber;
- (4) upon receipt of the routing information request result message, sending a location request result message to the originating MSC by the HLR of the terminating subscriber;
- (5) detecting, by the originating MSC, a local directory number (LDN) included in the location request result message, routing the detected local directory number to the terminating MSC, and performing a call setup process;
- (6) after call setup, determining by the terminating MSC whether to redirect a present call, by consulting the termination trigger parameter and a calling feature directive parameter registered in the VLR in a termination-inactivated state;

25

a, ki, 🌲

5

10

- (7) sending, by the terminating MSC, a redirecting request invoke message to the originating MSC, when it is determined to redirect the present call;
- (8) upon receipt of the redirecting request invoke message from the terminating MSC, sending, by the originating MSC, a transfer number request invoke message to the HLR of the terminating subscriber in order to determine a call forwarding number; and
- (9) analyzing, by the HLR of the terminating subscriber, the transfer number request invoke message to determine to which phone number the present call should be redirected, searching for a call forwarding number of the terminating subscriber for a call forwarding service, inserting the searched call forwarding number in the transfer number request result message, and then sending the transfer number request result message to the originating MSC.
- The homezone call forwarding service method as claimed in claim 1, 2. wherein, the originating MSC detects the call forwarding number from the transfer number request result message and restarts a termination process.
- The homezone call forwarding service method as claimed in claim 1, 3. wherein, the termination trigger parameter is a parameter for defining a termination trigger point presently activated for the terminating subscriber.
- The homezone call forwarding service method as claimed in claim 1, 4. wherein the termination-inactivated state is one of a busy state, a no-answer state and a no-page response state.
- The homezone call forwarding service method as claimed in claim 1, 5. wherein, the parameter for inserting number identification information is a leg information parameter.
  - The homezone call forwarding service method as claimed in claim 5, 6.

wherein the redirecting request invoke message includes a redirecting reason parameter and a leg information parameter.

7. The homezone call forwarding service method as claimed in claim 5,
5 wherein the transfer number request invoke message includes the leg information parameter and the termination trigger parameter.